

EXPLORING LECTURERS' ATTITUDES TOWARDS THE CONCEPT OF METACOGNITIVE AWARENESS: A QUALITATIVE COMPARATIVE CASE

Marjan Masoodi

Mykolas Romeris University, Lithuania, e-mail: marjan.masoodi@mruni.eu

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Abstract

Purpose – The main purpose of this cross-cultural comparison study was to look at exploring lecturers' definitions and attitudes towards the concept of metacognitive awareness in university studies.

Design/methodology/approach – To explore the participants' general understanding of the construct of metacognition, the participants, ten female lecturers from Mykolas Romeris University in Vilnius and ten female lecturers from Azad University in Tehran all majoring in education or philology in the English Department, were asked an open-ended question, "What is metacognitive awareness?" This question determined if the participant had enough familiarity with the concept to be able to define it appropriately. The collected data was submitted to both inductive and deductive qualitative content analysis developed by Krippendorff (2013) which is a recursive process in which the data was reviewed to determine the major themes by the researcher and three raters.

Finding – Through both deductive and inductive qualitative content analysis of the responses, three main themes of "cognitive", "strategic" and "affective" emerged from the lecturers' definitions for the concept of metacognitive awareness. Participants in both groups considered this concept mostly cognitive and then strategic. The Lithuanian research participants did not mention anything about the affective meaning of metacognitive awareness, while a few Iranian participants' responses were categorized under this theme.

Research limitations/implications – The first limitation is that the study did not address the actual lecturers' employment of metacognitive strategies during teaching. Prolonged and in-depth class observation and triangulation of data from various sources which are gathered through different types of tools of measurement are needed. A further limitation is that the number of lecturers was limited to one university in Tehran and one university in Vilnius, so it is not possible to overgeneralize the outcomes to the universities of other cities.

Practical implications – The findings contribute to the enhancement of lecturers' pedagogical knowledge regarding the concept of metacognitive awareness and arrangement of future metacognitive awareness programs for lecturers with considering the benefits of focusing on emotional and motivational factors of learning further to strategic and cognitive dimensions.

Originality/value – Although studying metacognitive awareness at universities is becoming a more and more significant concept, there can be found a little research on exploring lecturers' attitudes towards the meaning of metacognitive awareness globally. Thus, the study is new and unique because no research has compared and contrasted lecturers' attitudes towards this concept in Lithuanian and Iranian settings.

Keywords: metacognitive awareness, lecturers, attitudes, university studies, Iranians, Lithuanians.

Research type: research paper.

JEL classification: I2.

Introduction

Research concerning how to teach metacognitive awareness has yielded positive results on learning (Conyers and Wilson, 2016; Flavell, 1976; Fleming, 2014) over the last three decades

specially by suggesting the process-oriented approach to teaching. In reality, teaching metacognitively is not individualized instruction with total learner independence. It is a social process that considers all people in the class (Čepaitė and Prakapas, 2012) and lecturers share responsibility for learning with students without fear of losing their authority. Besides, metacognitive awareness is not innate and should be formally taught. Metacognitive awareness of learners and lecturers is interdependent, lecturers who want to raise the level of metacognitive awareness in the classroom should embark with themselves and reflect on their attitudes, practices, and perspectives in this regard (Masouleh and Jooneghani, 2012). As Willis (2011) pointed out, access to the attitudes of lecturers towards the concept of metacognitive awareness, its meaning and their related practices in the classes is crucial. In the same vein, exploring lecturers' attitudes as a precious arena of educational system depicting a connection among lecturers' attitudes, planning, choices and practices in the classroom has been regarded essential (Borg, 2018; Mansour, 2013; Pajars, 1992).

Determining a single and comprehensive meaning for the metacognitive term is not an easy task since metacognition is not only connected to various study fields but also multifaceted topics. That is why it is called fuzzy and mysterious. As Papaleontiou-Louca (2008) stipulated this concept has both cognitive and affective dimensions. Its affective state encompasses emotional and motivational factors, attitudes (Oxford, 1990), sense of self-efficacy and sense of self-confidence (Bandura, 1997; Ghonsooly et al., 2014; Kamalizad, 2015) which considering these factors in teaching and learning gives them more humanitarian and healthy style.

Iranian and Lithuanian lecturers' attitudes are different due to different cultural and instructional background, previous experience, education environment, teacher-learner relationship and language. Thus, probing the differences and similarities between lecturers' attitudes towards the concept of metacognitive awareness and how they define it in two university contexts of this study can lead to a much clearer picture in the scenario of metacognitive awareness learning and teaching both in Lithuanian and Iranian education contexts and globally. As a matter of fact, the influence of contextual meaning and being aware of it is highlighted by the sociological perspective of metacognitive awareness. Hence, a good level of metacognitive understanding in a globalized and interconnected world enables an individual either as a learner or lecturer to participate in the new multilingual academic society effectively.

The usefulness and benefits of teaching metacognitively which are highlighted in the literature, on one hand, and the importance of knowing the attitudes of lecturers towards the concept of metacognitive awareness and how they define it as a fundamental factor in their teaching, on the other hand, have been the main reasons for the researcher to carry out this research. Nevertheless, studies on lecturers' attitudes towards the concept of metacognitive

awareness and how they define it has not been sufficiently touched upon in our two contexts of study. To address this gap, this study aims to explore and compare the Iranian and Lithuanian EFL lecturers' stated definitions for the concept of metacognitive awareness and their attitudes towards this concept. The research question that addressed this issue is as following: How do the stated definition and attitudes towards the concept of metacognitive awareness of Lithuanian lecturers differ/compare with those of Iranians?

1. Theoretical background regarding lecturers' attitudes towards metacognitive awareness

The complexity for discovering lecturers' attitudes is because of various perspectives in defining and conceiving the structure of this concept and its poor conceptualization. Attitudes are associated to the lecturer's social systems, economic and political situations, class observation and experience, selections of objectives in the class, what language he thinks, acts and believes and the level of consciousness (Bullock, 2010). Understanding one's attitudes needs inference being made about the underlying mind state of that person such as one's saying, intention and behavior consciously or unconsciously which is not an easy task since that person may be unable or unwilling to express one's attitudes (Borg, 2018; Bullock, 2010; Mansour, 2013) that causes inconsistency between attitudes and practices (Mansour, 2013). Lecturers' attitudes are more crucial factor than their knowledge on having effective teaching (Xu, 2012). In fact, lecturers' attitudes have an effect on their consciousness, teaching behavior and methods, coping with teaching issues, formation of a learning environment and learner learning and motivation. If there is a systematic metacognitive awareness program imposed by the University for teaching, it will be finally the lecturers who intentionally or unintentionally bring or reject it based on their attitudes. Despite the interlocked complex and dynamic learning and teaching process, there has been a clear connection between the attitudes of lecturers and students. The values of lecturers and their perceptions of their students are closely linked and many students perform in the manner their instructor wants them to act, even involuntarily and non-verbally. Attitudes are also associated with learning and teaching expectation and class practices (Borg, 2018; Bullock, 2010; Mansour, 2013; Pajares, 1992).

Due to the fact that the improvement of lecturers' metacognitive competence is a lifelong activity, the study in this sphere and its advancement are of great importance and this topic is used in university studies of many Lithuanian researchers. Kriauciūnienė (2010) in her study indicates that the most prevailing stimuli of future foreign language lecturers for their purpose of studies are "cognitive and those of linguistic competence and the least moral/social and pedagogical professional" (p. 28). She asserts that the most commonly utilized teaching methods are "passive,

less frequently used communicative (discussions, debates, group and pair work) and the least is problem solving method” (p. 28). Besides, Čepaitė and Prakapas (2012) in their article note that the improvement of metacognitive competence is most often connected to the lecturers’ previous hypothetical preparation. Valiukienė (2014) finds out that the lecturers believe that most regularly utilized academic words and metacognitive skills are as essential and crucial sections of their project.

Lecturers’ attitudes towards metacognitive awareness have been explored in several ways in previous Iranian university studies as well. Nahrkhalaji (2014) found a relatively high correlation between EFL lecturers’ metacognitive awareness and their pedagogical success. He mentioned in any authentic classroom there were always some unpredictable situations requiring metacognitive thinking. In another study, Azari, Moeini and Shafiee (2014) looked at the awareness, attitudes, and instructional practices of EFL lecturers about vocabulary teaching strategies and found a positive correlation between the lecturers’ attitudes and their instructional practices. After memory strategies, metacognitive strategies were the most popular selection of lecturers. Furthermore, Ansarin, Farrokhi and Rahmani (2015) discovered that the level of lecturers’ reflection had a direct influence on their performance. Nazari (2018) tested the lecturers’ pre- and post-course attitudes and practices of metacognitive listening teaching. The lecturers’ pre-course listening attitudes and practices echoed a product/text-oriented perspective. However, post-course analyses proved that the lecturers reflect on their previous ideas and criticize their own practices.

2. Method

Participants

A total of twenty EFL female lectures, ten from Mykolas Romeris University in Vilnius and ten from Azad University in Tehran was randomly selected to participate in this investigation. The two groups reported a similar background about gender, age, teaching experience, teaching courses, and study areas. Since qualitative data analysis was conducted on the obtained data from lecturers and in qualitative research the question about sample size is unimportant, twenty informants (lecturers) helped to answer the related research question sufficiently.

Measure

The researcher-created questionnaire comprised two sections. The first section required the demographic information of the participants in terms of gender, degree, age and teaching experience. The second part included an open-ended question of “What is metacognitive awareness? Please try to define it in your own words.” to analyze lecturers’ definition and attitudes towards the concept of metacognitive awareness.

Data collection and data analysis procedure

Content analysis (CA) is the research methodology which was used in this research to make sense of the content of the messages and to determine the textual meaning of the lecturers' statements. The current study applied a qualitative approach to analyze attitudes and definitions. The analysis involved discovering patterns, themes and categories in the data which was developed by Krippendof (2013). Open coding of the participants' responses was the first step to identify the themes and patterns. To analyze the data, the answers to the open-ended question were inductively analyzed based on the lecturers' responses and were placed in a number of themes developed from their words related to common definitions of this term including "cognitive", "strategic" and "affective" themes. Words such as "know", "think", "reflect", "understand", "aware", "figure out" and "acquisition", which are all related to brain activities included under the main theme of "cognitive". Some words such as "monitor", "control", "regulate", "assess" and "goal" that are related to the use of strategies were categorized under the "strategic" theme. The "affective" theme included "emotion", "motivation" and "interest" words. To provide a frequency count of the participants' responses and identify patterns, each response was scored one point.

Furthermore, for the same open-ended question, deductive content analysis was also conducted to associate the lecturers' responses to the most six common definitions for metacognitive awareness in the literature. If the lecturer's response had one theme of the definition one point was given to it under that definition and if it had two themes of the definition, two points would be given to it and so forth.

It should be notified that in both inductive and deductive content analyses there was not found any considerable difference among the researcher's and three reviewers' categories for themes.

Finally, the frequency of the categorized themes was calculated and then converted to percentages.

3. Results

Lecturers' attitudes towards the concept of metacognitive awareness

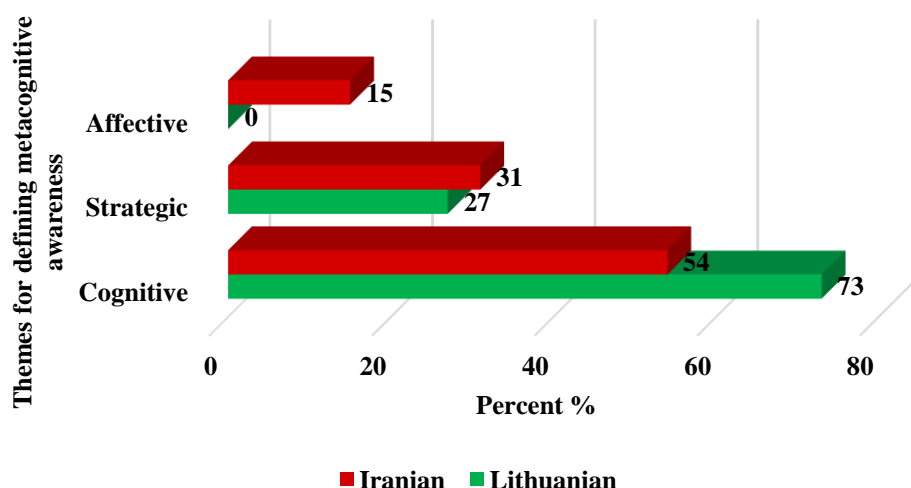
Through the inductive content analysis, the most to least frequently used key themes related to the meaning of metacognitive awareness from the lecturers' perspective were calculated, as well as the percentage of using the themes and presented in Table 1.

Table 1. Themes applied by lecturers for defining metacognitive awareness

No	Lecturers' Statements	Themes		
		Cognitive	Strategic	Affective
1	I can only say that it is reflection, it is thinking about thinking.	+		
2	I understand that there are ways to make my learning\teaching process better and I apply this in practice.		+	
3	It's my awareness of the acquisition of knowledge, process of learning, my learning skills and habits.	+	+	
4	The term meta means beyond. Metacognitive awareness covers understanding of goals of learning process and figuring out the best strategies for learning and assessing whether the learning goals are being met.	+	+	
5	It means being aware how you learn.	+		
6	It is "thinking about thinking" or "knowing about knowing".	+		
7	Knowing about how you learn and get new knowledge.	+		
8	Being aware of how you learn.	+		
9	Reflective thinking-Critical thinking	+		
Lithuanian frequency of chosen themes 11		8	3	0
Percentage of chosen themes 100%		73%	27%	0%
1	It is "thinking about thinking".	+		
2	I consider it more psychological and affective than cognitive factor. Simply, it is "thoughts about thoughts.	+		+
3	Conscious thinking of one's own learning.	+		
4	Thinking about the process of learning, higher order thinking.	+		
5	The activity of monitoring and controlling one's cognition.		+	
6	The learner's ability to consciously and deliberately monitor and regulate his learning.		+	
7	The individual knowledge about his own learning processes, cognitive and emotional states.	+		+
8	Knowledge to control and monitor one's performance in tasks.	+	+	
9	Higher level of thinking.	+		
10	The activity of monitoring and controlling one's cognition.		+	
Iranian frequency of chosen themes 13		7	4	2
Percentage of chosen themes 100%		54%	31%	15%

Source: composed by author.

These themes revealed some additional insights regarding lecturers' attitudes towards metacognitive awareness and enriched the research data. Participants in both groups considered this concept mostly cognitive and then strategic. The Lithuanian research participants did not mention anything about the affective meaning of metacognitive awareness, while a few Iranian participants' responses were categorized under this theme (see Figure 1).



Source: composed by author.

Figure 1. Themes applied by lecturers for defining metacognitive awareness, 100%

As can be depicted in Figure 1, both Iranian and Lithuanian lecturers mostly related the concept of metacognitive awareness to its “cognitive” dimension rather than the “strategic” and “affective” ones.

Association of the lecturers’ responses to the most popular definitions for metacognitive awareness

Below please find the selected prominent researchers’ definitions with underlined main words and the specified theme for each one in the parentheses next to them:

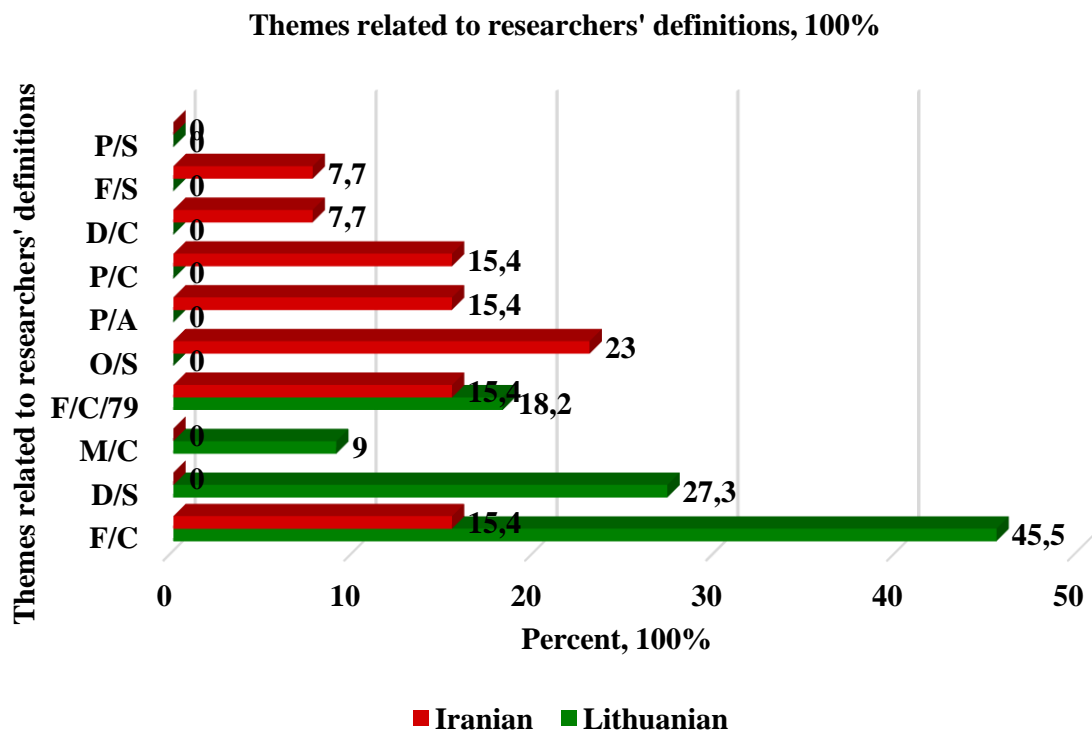
1. The ability to reflect (cognitive) upon our own thought (cognitive) and behavior (Metcalf, 1996).
2. Awareness (cognitive) and monitoring (strategy) of one’s thoughts (cognitive) and task performance or simply thinking (cognitive) about thinking (Flavell, 1979).
3. Our awareness (cognitive) of the learning process (Flavell 1970).
4. It refers to higher-order mental (cognitive) processes involved in learning such as making plans (strategy) for learning, using appropriate strategies (strategy) to solve a problem, making estimates of performance and calibrating the extent of learning (Dunslosky and Thiede, 1998).
5. It is not only “thoughts about thoughts” and cognitive (cognitive) states but also affective states, motives, intentions (affective), and all those states related to cognitive phenomena, as well as the ability to consciously and deliberately monitor and regulate (strategy) them (Papaleontiou-Louca, 2008).
6. The activity of monitoring and controlling (strategy) one’s cognition (Ormrod, 2004; Young and Fry, 2008).

Table 2. The themes related to researchers' definitions of metacognitive awareness

No	Lecturers' Statements	Definitions									
		Metc(1996)	Flavell (1979)		Flavell (1970)	Dunsloskyand Thiede (1998)		Papaleontiou-Louca (2008)			Orinrod (2004) Young and Fry (2008)
			Cognitive	Cognitive		Strategic	Cognitive	Cognitive	Strategic	Cognitive	
1	I can only say that it is reflection, it is thinking about thinking.		+								
2	I understand that there are ways to make my learning/teaching process better and I apply this in practice.						+				
3	It's my awareness of the acquisition of knowledge, process of learning, my learning skills and habits				+		+				
4	The term meta means beyond. MA covers understanding of goals of learning process and figuring out the best strategies for learning and assessing whether the learning goals are being met.				+		+				
5	It means being aware how you learn.				+						
6	It is "thinking about thinking" or "knowing about knowing".		+								
7	Knowing about how you learn and get new knowledge.				+						
8	Being aware of how you learn.				+						
9	Reflective thinking-Critical thinking.	+									
Lithuanian frequency of chosen themes (in total 11)		1	2	0	5	0	3	0	0	0	0
Percentage of chosen themes 100%		9	18.2	0	45.5	0	27.3	0	0	0	0
1	It is "thinking about thinking".		+								
2	I consider it more psychological and affective than cognitive factor. Simply, it is “thoughts about thoughts.							+		+	
3	Conscious thinking of one’s own learning.				+						
4	Thinking about the process of learning.				+						
5	The activity of monitoring and controlling one’s cognition.										+
6	The learner’s ability to consciously and deliberately monitor and regulate his learning.										+
7	The individual knowledge about his own learning processes, cognitive and emotional states.							+		+	
8	Knowledge to control and monitor one’s performance in tasks.		+	+							
9	Higher level of thinking.					+					
10	The activity of monitoring and controlling one’s cognition.										+
Iranian frequency of chosen themes (in total 13)		0	2	1	2	1	0	2	0	2	3
Percentage of chosen themes 100%		0	15.4	7.7	15.4	7.7	0	15.4	0	15.4	23

Source: composed by author.

Table 2 represents the three main themes of “cognitive”, “strategic” and “affective” related to the researchers’ definitions for metacognitive awareness emerged from deductive content analysis. Moreover, it contains information about the frequency and percentage of applying these themes in the lecturers’ statements. As indicated, 45.5 % of Lithuanian participants chose Flavell’s definition (1970) which has a purely cognitive dimension, while 31 % of Iranian lecturers selected cognitive and affective themes included in Papaleontiou-Louca’s definition (2008). These selections reveal that Lithuanian lecturers identified metacognitive awareness mostly with the cognitive aspects, however; besides the cognitive aspect, Iranian lecturers included the affective dimension in their definitions as well (see also Figure 2).



KEY: C, S and A stand for cognitive, strategic and affective respectively. While F, D, M, O and P are the initials of the following researchers' names: Flavell, Dunslosky and Thiede, Metcalfe, Ormrod, and Young and Fry and Papaleontiou-Louca.

Source: composed by author.

Figure 2. Themes related to researchers' definitions, 100 %

It can be concluded from Figure 2 that in selecting the researchers’ definitions for the concept of metacognitive awareness, both Lithuanian and Iranian lecturers selected the definitions that considered it to be mostly cognitive and only a few Iranian lecturers chose the definition which encompassed the affective states of this concept as well.

4. Discussion

According to Papaleontiou-Louca (2008), the concept of metacognitive awareness includes not only cognitive states but also affective states, motives, and intentions. Hacker’s (1998, pp. 1-23)

comprehensive definition of metacognitive awareness focuses on the same points by stating “knowledge of one’s knowledge, processes and cognitive and affective states” and “ability to consciously monitor and regulate one’s knowledge, processes, cognitive and affective states”. Affective status is associated with emotions, motivation, and attitudes towards learning (Oxford, 1990). When we speak and read, we often employ affective strategies indirectly which help to reduce anxiety, motivate ourselves and take our emotional temperature in the learning process. As we read a text, the affective facet, motivation to solve the reading problems pertains potently to the cognitive aspect which is focusing on linguistic features to get the meaning (Chamot and O’Mally, 1994).

The findings of the current study indicate that in defining the concept of metacognitive awareness, both Lithuanian and Iranian lecturers consider it to be mostly cognitive and only a few Iranian lecturers take into account the affective states of this concept. It is sensible to presume that both groups should consider its affective dimensions more. What is more, it is quite indisputable that lecturers’ attitudes towards this concept have a larger impact on their teaching, on the learners’ learning and motivation than their knowledge. That is the reason why we consider learners’ affective dimensions in this part as well. The present findings are consistent with research findings revealing that the teaching aims of the majority of future foreign language lecturers are cognitive and related to increasing linguistic competence (Kriaučiūnienė, 2010). Melienė (2008) cannot find reading for curiosity or interest among the learners. The external reading motivation for obtaining a good score is merely the main target of the learners as well. Yet, it seems that our findings do not confirm the standpoints proposed by lecturers in Čepaitė and Prakapas’ (2012) research which shows that the development of metacognitive competence is more often linked to the students’ motivation and that Iranian learners, as Kamalizad (2015) articulates, are less inclined to employ affective strategies compared to other strategies. As the classroom is the only environment for Iranian students to exercise the English language; therefore, they do not have any other opportunities to build up a second language identity for self-expression which causes some problems for them to control their emotions and anxiety and fear of making mistakes when they talk in the classroom. All of these can be the potential explanation for Iranian learners’ lower use of affective strategies.

Insufficient motivation is regarded as a chronic problem in metacognitive learning processes. The motivational dimension of metacognitive awareness has almost gone unnoticed by our participants. Lecturers’ cognitive attitudes towards this concept may affect not only their motivational behavior and practice but also their learners’ attitudes. In this vein, Melienė (2008) emphasizes lecturers’ internal motivation as a significant point of learners’ metacognitive strategies. What is more, it is quite indisputable that the learners determined motivation as one of the main

reasons for success in learning in Rinkevičienė and Zdanytė's (2002) study. In Beresnevičienė and Mačianskienė's (2000) study, learners did not apply affective strategies two decades ago. Actually, more competent learners employed a few affective strategies which were statically insignificant, such as taking risks, encouraging themselves and making positive statements whereas unskillful learners did not employ any.

Some researchers (Bandura, 1997; Coutinho, 2007; Larivée, 2008) demonstrate that self-efficacy (or self-belief) is another significant factor of metacognitive awareness affective status and a lion's share of learners' problem is associated with a low level of it not lack of ability and skills (Pajares, 1992). The high level of it leads to autonomous, confident, successful interested and motivated learners with better academic performance and higher achievement. Self-efficacy affects learner's learning, motivation and ability to undertake a task (Bandura, 1997). For instance, if a person considers writing as a complex activity with inborn talent, this way of thinking gives him/her negative self-concepts regarding this skill. Most scholars, especially those that believe in constructivism (Flavell, 1976), assume the attitude as part of an individual's declarative knowledge that has a great impact on their thinking and learning. As a result, any enhancement in self-efficacy has a direct positive impact on the level of declarative knowledge. The level of learners' self-efficacy was found to be low in previous Iranian university studies but enhanced to medium level after instruction by Tavakoli and Koosha (2016). They ascertain that a new metacognitive strategy becomes the learners' procedural knowledge if teachers equip them with a variety of related and repeated activities. Based on Nosratinia, Saveiy and Zaker (2014) a positive strong relationship exists between or among learners' self-efficacy, metacognitive awareness and learning strategy application. With the level of metacognitive awareness, we can predict the amount of application of learning strategies which is associated with the students' level of or sense of self-efficacy. Since Iranian learners are not high strategy users (Riazi and Rahimi, 2005), they weakly reinforce their self-efficacy and raise their metacognitive awareness less than learners in other countries.

Due to the fact that learning is a multidimensional phenomenon, not only learners but also lecturers are required to play their role properly to facilitate and optimize this complicated process. In other words, lecturers' personal and psychological features like beliefs, attitudes, motivation level, and self-efficacy are influential factors not only on their teaching process but also on the level of students' self-efficacy (Bandura, 1997; Pajares, 1992). The importance of the impact of lecturers' metacognition and self-efficacy on their academic performance has been proved by Iranian researchers like Ghonsooly, Khajavy and Mohaghegh Mahjoobi (2014). It means that lecturers with a higher level of metacognitive awareness have a stronger sense of self-efficacy compared to their colleagues with a lower level of it.

The issue that highlights the role of lecturers might be the lack of considering an affective facet of metacognitive awareness and its impact on their students' behavior. Considering this dimension might be expected for a more humanitarian teaching style which fosters the development of self-efficacy both in learners and lecturers. The results of this part underlined the contribution of affective facets including motivational and emotional factors in raising learners' metacognitive awareness. Therefore, lecturers should consider the underlying effects of these aspects in their practice. If a lecturer does not believe in this state and only focuses on the cognitive dimension, it will be very daunting for him/her to circulate a healthy feeling and inspire emotions among learners. Self and peer modeling, knowing about learners' preference of metacognitive strategy, interest, and choice, presenting metacognitive strategies from the simplest to most complex ones, noticing learners' feedback, and leading the learners to experience learning progress, all are main sources of reinforcing learners' self-efficacy by the lecturers in the classroom environment.

5. Conclusion

When considering the results of lecturers' attitudes towards the concept of metacognitive awareness and their related definition in this regard in both groups, it can be said that they are quite familiar with this concept and have similar knowledge about it, though they mostly related it with its "cognitive" dimension rather than the "strategic" and "affective" ones. This means that they need more training on the theory and practice of metacognitive awareness, so that they can also consider the benefits of focusing on emotional and motivational factors of learning.

Based on our findings our lecturers mostly ignore the affective states of metacognitive awareness not realizing that this attitude has a huge influence on their teaching and consequently on learners' learning. Therefore, it is highly recommended that the provided activities in learners' metacognitive instruction raise motivation, a sense of self-efficacy and confidence and expectation from learning. Moreover, as metacognitive awareness is socially mediated learning, it can be developed in a collaborative and authentic environment. Cultivating the nature of learners' independence with the lecturers' supportive role, giving the learners choice in what they do at their own pace and informing the purpose of whatever is going on in the classroom can be defining factors. Lecturers are expected to be in a consistent learners' need analysis, discovering their interests, preferred activities and style of learning. Last but not least, lecturers should increase the metacognitive awareness climate of a classroom by expressing high expectation to metacognitive awareness learning verbally and non-verbally while communicating with learners in a warm, positive and motivating manner to boost learners' sense of self-confidence and self-efficacy.

Despite the lecturers' good understanding of the concept of metacognitive awareness, this study highlights the necessity for lecturers' metacognitive training so that they can update their

knowledge to cope with changes in the education system innovatively and creatively to implement their expertise in the classroom. Therefore, the second recommendation is aimed at the development of a lecturers' metacognitive program in general and particularly in improving their declarative knowledge with sufficient procedural materials. Lecturer research participants themselves mention only the cognitive facets and ignore affective ones while defining the metacognitive awareness concept. It is quite sensible to equip them with metacognitive affective states, which have a direct effect on their teaching content. In these training courses, socialization of ideas can be conducted either by having co-teaching or analyzing their results together upon pre-determined variables related to metacognitive awareness.

According to the results of this research, the third recommendation is made for material developers who should revise the curriculum based on consideration of the findings taking into account both lecturers' attitudes towards metacognitive awareness and design varieties of practices and activities that elicit a range of metacognitive strategies. In this way, individual differences in selecting their preferred strategies will be taken into consideration which can increase the application of metacognitive strategies, their sense of self-efficacy and motivation.

The results of the current study on lecturers' attitudes towards metacognitive awareness point out some ideas that need exploring. First, research is still lacking in discovering the relationship between lecturers' attitudes towards the concept of metacognitive awareness and the related actual practice in the classroom. Additionally, a self-efficacy questionnaire should be designed based on our specific field of study, which in our case is metacognitive awareness, as Bandura (1997) stresses that applying the existing general Sense of Self-Efficacy Scales may not be predictive and valid in every context, can be used to measure and consider motivational attitudes of both learners and lecturers in future research.

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